UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
MENBERU, BENIYAM

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 May 2008*.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-8* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☒ None of:
        1.☒ Certified copies of the priority documents have been received.
        2.☐ Certified copies of the priority documents have been received in Application No. _____.
        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

Response to Arguments

1.   Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Priority

2.   Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Australia on July 12, 1997. It is noted, however, that applicant has not filed a certified copy of the PP7979 application as required by 35 U.S.C. 119(b).

3.   Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Australia on July 15, 1997. It is noted, however, that applicant has not filed a certified copy of the PO7991 application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1, 2, 3, 5, and 6 are rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. Patent No. 5875034 to Shintani et al in view of U.S. Patent No.

5916358 to Bagchi et al.

Regarding claim 1, Shintani et al '034 discloses an image sensing (Figure 1,

CCD 101; column 7, lines 23-30) and printing (Figure 1, reference 111; 60-66) digital

camera device (Figure 1 shows digital camera; column 7, lines 21-23; column 10, lines

25-29; analog/digital conversion) which comprises

a housing (Figure 3a shows housing for the camera (column 6, lines 21-25; camera

main body is housing);

an area image sensor positioned on the housing for sensing a viewed image to be

printed on media and for generating pixel data representing the viewed image (column

7, lines 24-30; CCD is sensor; column 10, lines 9-44; memory 311, 312 store image

data from sensor ; RGB image data; column 20, lines 8-19; pixel; column 12, lines 63-

67; column 13, lines 1-15; images in memory 311, 312 is printed on media (column 14,

lines 13-16; recording sheet).);

a printing mechanism that is arranged on the housing (column 6, lines 21-25; printer

case; Figure 1 reference 111 is printer (column 7, lines 12-21;), the printing mechanism

defining a media feed path (column 14, lines 13-15; sheet feeding) and comprising a

print head assembly (column 13, lines 63-67; head 403) that includes a having at least

one print head chip that spans the media feed path (column 13, lines 63-67; column 14,

lines 1-6; head 410 is the print head chip;); and

a feed mechanism for feeding media along the media feed path so that the print head

can carry out a printing operation on the media (column 14, lines 12-21; sheet feeding

unit 404); and

a processor that is positioned in the housing, the processor comprising processing

circuitry (Figure 1, processor 100, processing unit 102; column 7, lines 29-34); an image

sensor interface connected to the processing circuitry for receiving pixel data from the

image sensor (Figure 1, CCD sensor 101 is connected to the processor 102; pixel data

from sensor 101 is received by processor 102; column 10, lines 8-18), converting the

pixel data into an internal format and writing the converted pixel data to the processing

circuitry (column 10, lines 25-44; digital conversion by 305; memory 311, 312 are used

for writing data), the processing circuitry being configured to convert the pixel data to

print image data (column 12, lines 63-67; column 13, lines 1-15; data from memory 311,

312 are used for printing); and

a print head interface connected to the processing circuitry for receiving the print image

data from the processing circuitry and for providing signals representing the print image

data to the print head so that the print head can carry out said printing operation to

generate a printed representation of said viewed image (Figure 1 shows interface

between processor 102 and printer 111; Figure 5 shows print head unit 400, 403, 410;

column 13, lines 63-67; column 14, lines 1-6;). However Shintani et al '034 does not

disclose a page width print head.

Bagchi et al '358 discloses disclose a page width print head (column 23, lines 32-

44; printers internal to digital camera application; column 25, lines 9-14; page width print

head).

Having the system of **Shintani et al '034** and then given the well-established

teaching of **Bagchi et al '358**, it would have been obvious to one of ordinary skill in the

art at the time of the invention was made to modify the system of **Shintani et al '034** as

taught by **Bagchi et al '358**, since **Bagchi et al '358** stated in col. 30, Lines 36-41, 55-

61, such a modification would provide tolerance for production and reliance.

Regarding claim 2, Shintani et al '034 in view of Bagchi et al '358 teaches all the

limitations of claim 1. Further Shintani et al '034 discloses a device as claimed in claim

1, in which the area image sensor is one of a charge coupled device and an active pixel

sensor (Figure 1, CCD 101; column 7, lines 23-30).

Regarding claim 3, Shintani et al '034 in view of Bagchi et al '358 teaches all the

limitations of claim 1. Further Shintani et al '034 discloses a device as claimed in claim

1, in which the printing mechanism includes an ink distribution assembly that is mounted

on the print head assembly to distribute ink to the print head chips (column 18, lines 1-9,

head 410 is pressed onto ink ribbon).

Regarding claim 5, Shintani et al '034 in view of Bagchi et al '358 teaches all the

limitations of claim 1. Further Shintani et al '034 discloses a device as claimed in claim

1, in which the processor is configured to be programmable with any of a number of

image processing programs so that the processor can carry out image processing

operations on the pixel data in accordance with a selected program loaded on the

processor (column 12, lines 34-42, 63-67; column 13, lines 1-5, 16-20; tv mode, printing

mode, and multi-image are the image processing programs that are executed

depending on the mode).

Regarding claim 6, Shintani et al '034 in view of Bagchi et al '358 teaches all the

limitations of claim 5. Further Shintani et al '034 discloses a device as claimed in claim

5, which includes a reader for reading said any of a number of image processing

programs stored on a data storage device and a reader interface for writing the program

to the processor (column 12, lines 11-19 (information read from memory card); column

12, lines 34-42, 63-67; column 13, lines 1-5, 16-20; processor 100 is programmed to

perform processing depending on the mode. When the processor 100 is programmed to

execute processing (column 13, lines 16-20), that reads on writing program to the

processor.).

6.   Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 5875034 to Shintani et al in view of U.S. Patent No. 5916358 to Bagchi et al

further in view of U.S. Patent No. 6597394 to Duncan et al.

Regarding claim 4, Shintani et al '034 in view of Bagchi et al '358 teach all the

limitations of claim 1. However Shintani et al '034 in view of Bagchi et al '358 does not

disclose a device as claimed in claim 1, in which the processing circuitry defines a VLIW

processor that is configured to perform image processing operations on the pixel data.

Duncan et al disclose in which the processing circuitry defines a VLIW processor

that is configured to perform image processing operations on the pixel data (column 17,

lines 30-62).

Having the system of ***Shintani et al '034 in view of Bagchi et al '358*** and then

given the well-established teaching of ***Duncan et al '394***, it would have been obvious to

one of ordinary skill in the art at the time of the invention was made to modify the

system of ***Shintani et al '034 in view of Bagchi et al '358*** as taught by ***Duncan et al

'394***, since ***Duncan et al '394*** stated in column 17, lines 34-51, such a modification

would provide many instructions using the VLIW architecture.

7.   Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over

U.S. Patent No. 5875034 to Shintani et al in view of U.S. Patent No. 5916358 to Bagchi

et al further in view of U.S. Patent Application Publication No. US 2002/0024603 A1 to

Nakayama et al.

Regarding claim 7, Shintani et al '034 in view of Bagchi et al '358 teach all the

limitations of claim 6. However Shintani et al '034 in view of Bagchi et al '358 does not

disclose a device as claimed in claim 6, in which the reader is an optical reader for

reading a two-dimensional pattern printed on a planar element, the two-dimensional

pattern representing a program in an image processing language, the optical reader

being configured to generate program data and the reader interface being configured to

receive the program data and to write the program data, in an internal format, to the

processor.

Nakayama et al disclose a device as claimed in claim 6, in which the reader is

an optical reader for reading a two-dimensional pattern printed on a planar element, the

two-dimensional pattern representing a program in an image processing language, the

optical reader being configured to generate program data and the reader interface being

configured to receive the program data and to write the program data, in an internal

format, to the processor (page 3, paragraph 54; page 2, paragraph 32,33,34).

Having the system of **Shintani et al '034 in view of Bagchi et al '358** and then

given the well-established teaching of **Nakayama et al '603**, it would have been obvious

to one of ordinary skill in the art at the time of the invention was made to modify the

system of **Shintani et al '034 in view of Bagchi et al '358** as taught by **Nakayama et**

al '603, since **Nakayama et al '603** stated in page 1, paragraph 17, such a modification

would provide alternate method for controlling the image device by loading the program

from external source.

Regarding claim 8, Shintani et al '034 in view of Bagchi et al '358 further in view

of Nakayama et al teach all the limitations of claim 7. Further Nakayama et al disclose a

device as claimed in claim 7, in which the processor includes a memory device

(Nakayama et al : page 3, paragraph 54, reference 4, 5), the processing circuitry being

configured to write the program data in the internal format to the memory device

(Nakayama et al : page 3, paragraph 54; page 2, paragraph 34), the processor further

including a central processing unit (Nakayama et al : page 3, paragraph 58) and

Shintani et al '034 disclose wherein CPU which runs the program from the memory

device (processor 100 is programmed to execute processing (column 13, lines 16-20))

to define a software algorithm in terms of which the central processing unit addresses

registers in the print head interface to apply a desired effect to the print image data

(Figure 1, processor 100 interfaces the printing section 111; column 13, lines 1-15;

"desired print system" on column 13, line 11; column 13, lines 16-20, 56-61; One

desired effect is multi-image effect which can print multi-image. Column 19, lines 9-25;

head unit contains registers 501, 502).

Conclusion

8.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

    A shortened statutory period for reply to this final action is set to expire THREE

    MONTHS from the mailing date of this action. In the event a first reply is filed within

    TWO MONTHS of the mailing date of this final action and the advisory action is not

    mailed until after the end of the THREE-MONTH shortened statutory period, then the

    shortened statutory period will expire on the date the advisory action is mailed, and

    any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing

    date of the advisory action. In no event, however, will the statutory period for reply

    expire later than SIX MONTHS from the date of this final action.

    Any inquiry concerning this communication or earlier communications from the

examiner should be directed to BENIYAM MENBERU whose telephone number is (571)

272-7465. The examiner can normally be reached on 8:00AM-4:30PM.

    If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David Moore can be reached on (571) 272-7437. The fax phone number for

the organization where this application or proceeding is assigned is **571-273-8300**.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the customer service office whose telephone number

is (571) 272-2600. The group receptionist number for TC 2600 is (571) 272-2600.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov/>.

Should you have questions on access to the Private PAIR system, contact the

Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner
Beniyam Menberu

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Examiner, Art Unit 2625

07/11/2008

/David K Moore/

Supervisory Patent Examiner, Art Unit 2625